In the Claims:

1. (Previously Presented) A measurement system comprising a Coriolis flow meter and a control system,

said measurement system characterized by:

said Coriolis flow meter being configured to measure a density of a base fluid flowing through said Coriolis flow meter to generate a base fluid density measurement, transmit said base fluid density measurement, measure a density of a fracture fluid flowing through said Coriolis flow meter to generate a fracture fluid density measurement, wherein said fracture fluid comprises a mixture of said base fluid and a proppant, and transmit said fracture fluid density measurement; and

said control system being configured to receive said base fluid density measurement and said fracture fluid density measurement, and determine an amount of said proppant in said fracture fluid based on said base fluid density measurement, said fracture fluid density measurement, and a density of said proppant.

2. (Previously Presented) The measurement system of claim 1 wherein said Coriolis flow meter comprises a straight tube Coriolis flow meter.

3. (Previously Presented) The measurement system of claim 1 wherein said Coriolis flow meter is configured to receive a slip stream of said fracture fluid to measure said density of said fracture fluid.

4. (Previously Presented) The measurement system of claim 1 further comprising:

a first tube having a first end configured to connect to an input of said Coriolis flow meter and having a second end configured to connect to a discharge of a tank; and

a second tube having a first end configured to connect to an output of said Coriolis flow meter and having a second end configured to connect to said tank;

wherein said first tube is configured to receive a slip stream of material from said discharge of said tank, said slip stream travels through said first tube, through said Coriolis flow meter, through said second tube, and back into said tank.

5. (Previously Presented) The measurement system of claim 1 wherein said control system is configured to determine said density of said proppant.

6. (Previously Presented) The measurement system of claim 1 wherein said control system comprises:

a display system configured to provide said amount of said proppant to a user.

7. (Previously Presented) The measurement system of claim 1 wherein said control system comprises:

an auxiliary interface configured to transmit a signal representing said amount of said proppant to an auxiliary system.

8. (Previously Presented) The measurement system of claim 1 wherein said control system comprises:

a user interface configured to receive said density of said proppant entered by a user.

9. (Previously Presented) The measurement system of claim 1 wherein said control system is configured to:

calculate a velocity of said fracture fluid;

determine if said velocity of said fracture fluid exceeds a threshold; and

provide an indication if said velocity of said fracture fluid exceeds said threshold.

10. (Previously Presented) The measurement system of claim 1 wherein said control system is configured to:

calculate an average density of said base fluid based on a plurality of density measurements of said base fluid by said Coriolis flow meter; and

determine said amount of said proppant in said fracture fluid based on said average density of said base fluid, said fracture fluid density measurement, and said density of said proppant.

11. (Previously Presented) The measurement system of claim 1 wherein:

said Coriolis flow meter is configured to measure a mass flow rate of said fracture fluid, and provide at least one of said mass flow rate of said fracture fluid and a drive gain of said Coriolis flow meter to said control system; and

said control system is configured to provide at least one of said mass flow rate of said fracture fluid and said drive gain of said Coriolis flow meter to a user.

12. (Previously Presented) A method of measuring an amount of proppant in a fracture fluid, said method comprising the step of:

determining a density of said proppant;

said method characterized by the steps of:

measuring a density of a base fluid with a Coriolis flow meter to generate a base fluid density measurement;

measuring a density of a fracture fluid with said Coriolis flow meter to generate a fracture fluid density measurement, wherein said fracture fluid comprises a mixture of said base fluid and a proppant; and

determining an amount of said proppant in said fracture fluid based on said base fluid density measurement, said fracture fluid density measurement, and said density of said proppant.

13. (Previously Presented) The method of claim 12 wherein the step of measuring a density of a fracture fluid with said Coriolis flow meter comprises:

measuring said density of said fracture fluid with a straight tube Coriolis flow meter.

14. (Previously Presented) The method of claim 12 wherein the step of measuring a density of a fracture fluid with said Coriolis flow meter comprises:

receiving a slip stream of said fracture fluid into said Coriolis flow meter to measure said density of said fracture fluid.

15. (Previously Presented) The method of claim 12 further comprising the steps of:

connecting a first end of a first tube to an input of said Coriolis flow meter;

connecting a second end of said first tube to a discharge of a tank;

connecting a first end of a second tube to an output of said Coriolis flow meter; and

connecting a second end of said second tube to said tank;

wherein said first tube receives a slip stream of material from said discharge of said tank, said slip stream travels through said first tube, through said Coriolis flow meter, through said second tube, and back into said tank.

16. (Previously Presented) The method of claim 12 further comprising the step of:
providing said amount of said proppant to a user.

17. (Previously Presented) The method of claim 12 further comprising the step of:
transmitting a signal representing said amount of said proppant to an auxiliary system.

18. (Previously Presented) The method of claim 12 further comprising the step of:
receiving said density of said proppant from a user.

19. (Previously Presented) The method of claim 12 further comprising the steps of:
calculating a velocity of said fracture fluid;
determining if said velocity of said fracture fluid exceeds a threshold; and
providing an indication if said velocity of said fracture fluid exceeds said threshold.

20. (Previously Presented) The method of claim 12 further comprising the steps of:
calculating an average density of said base fluid based on a plurality of density measurements of said base fluid by said Coriolis flow meter; and
determining said amount of said proppant in said fracture fluid based on said average density of said base fluid, said fracture fluid density measurement, and said density of said proppant.

21. (Previously Presented) The method of claim 12 further comprising the steps of:
measuring a mass flow rate of said fracture fluid with said Coriolis flow meter; and
providing at least one of said mass flow rate of said fracture fluid and a drive gain of said Coriolis flow meter to a user.